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Response Dated September 30, 2003
Reply to Office Action dated July 1, 2003

REMARKS

In view of the preceding amendments and the following remarks, the Applicants respectfully request reconsideration of the present application.

Objections and Rejections

The Office Action dated July 1, 2003:

1. rejects renumbered claims 124, 126-128 and 130, -134 under 35 U.S.C. § 103(a) as being obvious based upon United States Patent no. 2,792,617 entitled "Process of Heat Setting Thermoplastic Net in Rope Form and Product Produced Thereby" which issued May 21, 1957, on an application filed by John Walter Ecroyd Haller ("the Haller patent"); and
2. and declares renumbered claims 125, 129 and 135-138 to be allowable if rewritten into independent form.

Description of the Amendments

This response amends the reference numbers of dependent claims 134 and 135 to conform the texts of those claims with a renumbering of misnumbered claims set forth on page 2 of the Office Action dated July 31, 2002.

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The Claimed Invention

The invention, as presently encompassed by pending independent claim 133, is an improved method for catching fish with a trawl net⁴ which includes a step of assembling the trawl net by interconnecting mesh cells⁵, each of said mesh cells including at least two

⁴ A text defining the term "trawl net" begins on page 8 at line 24 of the application as originally filed. FIGs. 1 and 2 graphically illustrate the trawl net 13, while FIG. 39 graphically illustrates the trawl net 263.

⁵ A text defining the term "mesh cell" begins on page 6 at line 20 of the application as originally filed. FIGs. 2, 3 graphically illustrate the mesh cell 30, FIG. 9e graphically illustrates the mesh cell 58, FIG. 33 graphically illustrates the mesh cell 200, FIG. 35 graphically illustrates the mesh cell 220, FIG. 37 graphically illustrates the mesh cell 240, and FIGs. 40 and 41 graphically illustrates the mesh cell 280.

cell bars⁶ with portions of at least one of said at least two cell bars being formed to have a plurality of cambered sections⁷.

⁶ A text defining the term "cell bar" begins on page 7 at line 7 of the application as originally filed. FIGs. 2, 3 graphically illustrate cell bars identified in the application's text as threads 35; FIG. 9e graphically illustrates cell bars identified in the application's text as mesh bars 59a', 59b', 59c' and 59d'; FIG. 33 graphically illustrates cell bars identified in the application's text as mesh bars 201, 202, 203 and 204; FIG. 35 graphically illustrates cell bars identified in the application's text as mesh bars 221, 222, 223 and 224; FIG. 37 graphically illustrates cell bars identified in the application's text as mesh bars 241, 242, 243 and 244; and FIGs. 40 and 41 graphically illustrates cell bars identified in the application's text as straps 284.

⁷ The phrase "cambered section" appears in the text of the patent application as originally filed set forth below which begins in line 3 on page 52.

It has been discovered that drag can be significantly reduced using mesh cells comprising rather loosely (not tightly) wound strands in a common direction. The pitch of the turns in the aforementioned range 3d to 70d but preferably are within a pitch range that results in a series of cambered sections parallel (or closely parallel) to the axis of symmetry of the trawl 13 being formed.

Texts explaining how cambered sections produce lift appear in the text of the patent application as originally filed set forth below set forth below which begin respectively in line 12 on page 39 with respect to the illustration appearing in FIG. 44, and in line 24 on page 39 with respect to the illustration appearing in FIG. 46.

The short sides 305 form either the leading or trailing edges of the straps 303. In order have the capability of a hydrofoil, the exterior far long side 304a (exterior relative to the central axis 281 of the trawl) is prefera-

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From a vessel disposed on a surface of a body of water, the improved method for catching fish further includes the method step of deploying into the body of water, as part of the trawl net, the cell bars having cambered sections.

Lastly, the improved method for catching fish includes the method step of propelling at least cell bars having cambered sections through the body of water relative to a water flow vector that is neither parallel nor perpendicular to cambered-sectioned cell bars. In this way, movement of cell bars having cambered sections through the water environment relative to the water flow vector creates a pressure differential across the cambered sections, thereby establishing a lift vector in a predetermined direction for cambered-sectioned cell bars.

bly cambered relatively more than the near long side 304b. As a result, lift vector 307 is provided.

The short sides 309 form either the leading or trailing edges of the straps 303'. In order [to] have the capability of a hydrofoil, the exterior far long side 308a (exterior relative to the central axis 281 of the trawl) is preferably cambered relative to uncambered near long side 308b, via placement of a series of shape-altering support sleeves 310 therealong, see FIG. 46. As a result, lift vector 311 of FIG. 47 is provided.

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Applicants respectfully observe that pending independent claim 133:

1. lacks any terminology regarding right handed or left handed cell bars; and
2. is fully supported by the text of the patent application as originally filed including the cambered section limitation which appears in a text that begins on page 52 beginning in line 3.

**Legal Principles Applicable to
Rejections Under 35 U.S.C. 103(a)**

Certain well established principles are to be applied in assessing whether or not an invention is patentable under 35 U.S.C. 103(a). First, the claims of a patent, which define the invention, are "to be construed in light of the specification and both are to be read with a view to ascertaining the invention." United States v. Adams, 383 U.S. 39, 49, 148 USPQ 479, 482 (1966). The "differences between the prior art and the claims at issue are to be ascertained." Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). Moreover, it is elementary that the claimed invention must be considered as a whole in deciding obviousness. Litton Industrial Products, Inc. v. Solid State Systems Corp., 755 F.2d 158, 164, 225 USPQ 34, 38 (Fed. Cir. 1985). The prior art as a whole must be considered, and those portions of the prior art

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arguing against or teaching away from the claimed invention must be considered. Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 796 F.2d 443, 448, 230 USPQ 416, 420 (Fed. Cir. 1986), In re Hedges, et al., 783 F.2d 1038, 1041, 228 USPQ 685, 687 (Fed. Cir. 1986).

For a single reference to render a claimed invention obvious under 35 U.S.C. § 103(a), the Court of Appeals for the Federal Circuit in In re Mills, 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990) held that although a prior art device "may be capable of being modified to run the way [the inventive] apparatus is claimed, there must be a suggestion or motivation in the reference to do so." In re Naylor, 369 F.2d 765, 768, 152 USPQ 106, 108 (CCPA 1967) quoting In re Spormann, 363 F.2d 444, 448, 150 USPQ 449, 452 (CCPA 1966).

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. See WMS Gaming, Inc. v. International Game Tech., 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999). The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. See In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981) (and cases cited therein). Whether the Board relies on an express or an implicit showing, it must provide particular findings related thereto. See

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Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. Broad conclusory statements standing alone are not "evidence." Id. In Re Werner Kotzab, 217 F.3d 1365, 1369, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000).

Finally, it is impermissible to first ascertain factually what the inventor did and then view the prior art in such a manner as to select from the random facts of that art only those which may be modified and then utilized to reconstruct the invention from such prior art. Panduit Corp. v. Dennison Manufacturing Co., 774 F.2d 1082, 1092, 227 USPQ 337, 343 (Fed. Cir. 1985).

A critical step in analyzing the patentability of claims pursuant to section 103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher." Id. (quoting W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983)). In Re Werner Kotzab, 217 F.3d 1365, 1369, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000).

Applying the preceding principles to pending claims 133-135 and to a proper interpretation of the disclosure of the Haller patent, Applicants respectfully submit that the Haller patent fails to disclose or to even suggest the invention embodied in presently pending claims 133-135.

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Argument

**The Safwat Declaration Bars
Rejecting Claims Based Upon
the Office Action's
Interpretation of the Haller Patent**

Applicants respectfully submit that, for the reasons set forth below, not only are pending claims 133-135 allowable over the Haller patent as interpreted in all Office Actions in the present application, but also withdrawn claims 124-132 and 136-138 are also allowable over that interpretation of the reference.

In maintaining the rejection of claims 124, 126-128 and 130-134 for obviousness under 35 U.S.C. § 103(a), page 4 of the July 1, 2003, Office Action states:

Response to Amendment

6. The declaration under 37 CFR 1.132 filed May 30, 2003 is insufficient to overcome the rejection of claims 124, 126-128, 130-134 based upon Haller as set forth in the last Office action because: the showing is commensurate in scope with the claims.⁸

It refer(s) only to the system described in the above referenced application and not to the individual claims of the application. Thus, there is no showing

⁸ Applicants have interpreted the preceding sentence as omitting the word "not" between the words "is" and "commensurate." If this sentence does not in fact omit the word "not," then the sentence would contradict the rejection of claims which appears in the immediately succeeding paragraph.

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that the objective evidence of nonobviousness is commensurate in scope with the claims.⁹ See MPEP § 716.

In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness. (Emphasis supplied.)

The declaration of Sherif Safwat received by the USPTO on May 30, 2003, first quotes in paragraph no. 5 on page 2 a specific allegation that appears in the January 28, 2003, Office Action regarding the disclosure and interpretation of FIGs. 1-5 of the Haller patent. The declaration of Sherif Safwat then presents:

1. in paragraph nos. 8 through 20; and
2. in Exhibits A through D to his declaration;

testimonial and graphic evidence which expressly contradicts and refutes the allegation quoted in paragraph no. 5 on page 2 of his declaration. Nowhere does the portion of the July 1, 2003, Office Action quoted above dispute the accuracy of or contradict a single item of evidence appearing in Mr. Safwat's declaration.

Since the July 1, 2003, Office Action violates MPEP § 716.01 as established by footnote no. 9 hereto, and also fails to contest

⁹ Manual of Patent Examining Procedure ("MPEP") Eighth Edition Revision 1, February 2003, in § 716.01 on page 700-236 declares that in holding a declaration to be insufficient to overcome a rejection of claims:

[g]eneral statements such as . . . "the evidence is not commensurate with the scope of the claims" without an explanation supporting such findings [is] insufficient. (Emphasis supplied.)

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the accuracy and truthfulness of Mr. Safwat's declaration received by the USPTO on May 30, 2003:

1. the facts set forth in the declaration must be deemed true;
2. the cell bar 59 appearing in FIG. 1 of the Haller patent is not left handed:¹⁰
 - a. as that terminology is used in the pending patent application; and
 - b. contrary to the allegation quoted from the January 28, 2003, Office Action that appears in:
 - i. paragraph no. 5 on page 2 of Mr. Safwat's declaration; and
 - ii. all Office Actions for the present application; and
3. therefore, the portion of the interpretation of the Haller patent quoted in paragraph no. 5 on page 2 of Mr. Safwat's declaration, because the interpretation of FIGs. 1-5 of the Haller patent is erroneous, provides no basis for rejecting claims 133-135 now pending in this patent application.

¹⁰ Declaration of Sherif Safwat received by the USPTO on May 30, 2003, page 5, paragraph no. 19.

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Consequently, Applicants respectfully:

1. submit that not only do:
 - a. pending claims 133-135 traverse rejection for obviousness under 35 U.S.C. § 103(a) based upon the Haller patent as interpreted in all Office Actions that have issued for the present application; but
 - b. also withdrawn claims 124-132 and 136-138 also traverse rejection based upon that interpretation of the reference; and
2. request that the rejection of pending claims 133-135 be withdrawn.

**Invention Actually Encompassed
by The Pending Claims**

If there be any further need to traverse the rejection set forth in the July 1, 2003, Office Action of pending claims 133-135 under 35 U.S.C. § 103(a) based upon the Haller patent, Applicants observe that pending amended claims 133-135, the texts of which appear above, do not require cell bars having any particular orientation either right handed or left handed. Rather, the text of independent claim 133 requires only that at least portions of at least one of the cell bars be formed with a plurality of cambered sections. Consequently, even if contrary to fact the Haller patent were to disclose a left handed cell bar 59, Applicants respectfully

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submit that it does not disclose, nor does it suggest, cell bars having cambered sections as encompassed by pending claims 133-135. For this second reason, Applicants respectfully:

1. submit that pending claims 133-135, as well as withdrawn claims 124-128, 130-132 all of which expressly require cambered sections, traverse rejection under 35 U.S.C. § 103(a) based upon the Haller patent; and
2. request that the rejection of claims appearing in the July 1, 2003, Office Action be withdrawn.

Conclusion

Regarding pending claims 133-135, Applicants first respectfully submit that they traverse rejection for obviousness under 35 U.S.C. § 103(a) based upon the Haller patent because the erroneous interpretation of FIGs. 1-5 thereof which appears in the Office Action dated July 1, 2003, as well as in all Office Actions in the present application, regarding whether the two ends of one twine 59 and 60 depicted therein are right handed or left handed is contradicted by evidence appearing in the declaration of Sherif Safwat received May 30, 2003, particularly:

1. paragraph nos. 8 through 20; and
2. in Exhibits A through D to his declaration.

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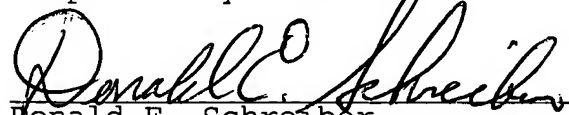
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Second, Applicants respectfully submit that pending claims 133-135 traverse rejection for obviousness under 35 U.S.C. § 103(a) based upon the Haller patent because:

1. the pending claims lack any text requiring a particular orientation, either right handed or left handed, for the cell bars; and
2. the cited reference lacks any disclosure regarding "cambered sections" which appears in the text of independent claim 133.

Because for both of the preceding reasons pending claims 133-135 traverse rejection based upon the Haller patent, Applicants respectfully request that the rejection of claims set forth in the July 1, 2003, Office Action be withdrawn, and that this application pass promptly to issue.

Respectfully submitted



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